

```
1 #include <iostream>
2 #include <fstream>
3 #include <vector>
4
5 struct Point {
6     int id;
7     double x;
8     double y;
9 };
10
11 class DataReader {
12 public:
13     DataReader(const std::string& filename) : filename(filename) {}
14
15     bool readData() {
16         std::ifstream file(filename);
17         if (!file.is_open()) {
18             std::cerr << "Error opening file: " << filename << std::endl;
19             return false;
20         }
21
22         std::string line;
23         while (std::getline(file, line)) {
24             if (line == "PTS") {
25                 readPoints(file);
26             } else if (line == "CON") {
27                 readConnections(file);
28             }
29         }
30
31         file.close();
32         return true;
33     }
34
35     const std::vector<Point>& getPoints() const {
36         return points;
37     }
38
39     const std::vector<std::pair<int, int>>& getConnections() const {
40         return connections;
41     }
42
43 private:
44     void readPoints(std::ifstream& file) {
45         points.clear();
46         std::string line;
47         while (std::getline(file, line) && line != "CON") {
48             Point point;
49             if (std::sscanf(line.c_str(), "%d %lf %lf", &point.id, &point.x,
50 &point.y) == 3) {
51                 points.push_back(point);
52             }
53         }
54
55     void readConnections(std::ifstream& file) {
56         connections.clear();
57         std::string line;
58         while (std::getline(file, line)) {
```

```
59         int from, to;
60         if (std::sscanf(line.c_str(), "%d %d", &from, &to) == 2) {
61             connections.push_back(std::make_pair(from, to));
62         }
63     }
64 }
65
66     std::string filename;
67     std::vector<Point> points;
68     std::vector<std::pair<int, int>> connections;
69 };
70
71 int main() {
72     DataReader reader("data.txt");
73
74     if (reader.readData()) {
75         const std::vector<Point>& points = reader.getPoints();
76         const std::vector<std::pair<int, int>>& connections =
77         reader.getConnections();
78
79         std::cout << "Points:" << std::endl;
80         for (const Point& point : points) {
81             std::cout << "ID: " << point.id << ", X: " << point.x << ", Y: " <<
82             point.y << std::endl;
83         }
84
85         std::cout << "Connections:" << std::endl;
86         for (const auto& connection : connections) {
87             std::cout << "From: " << connection.first << ", To: " <<
88             connection.second << std::endl;
89         }
90     }
91     return 0;
92 }
```